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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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|-----------------|-------------|----------------------|---------------------|------------------|

09/917,507

07/27/2001

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RSW920010069US1

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02/21/2006

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EXAMINER

TRUONG, CAMQUY

ART UNIT

PAPER NUMBER

2195

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/917,507

Applicant(s)

CLOHESSY ET AL.

Examiner

Camquy Truong

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2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-25 are presented for examination.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chew (U.S. Patent 6,910,210) in view of Woolsey et al (6, 029, 000).

4. As to claims 1, 14 and 20, Chew teaches the invention substantially as claimed including: A runtime-resource management method for use with a portable device, said method comprising the steps of:

Identifying one or more new application components scheduled to be loaded and stored on said portable device, each of said one or more new application components having an associated resource description list (RDL) (col. 2, lines 5-8; col. 9, lines 42-45);

Determining maximum required runtime resources for said one or more new application components from said associated RDLs (col. 9, lines 2-7 and lines 12-14);

Determining a CARSRMAX (Current Available Runtime System Resources of the portable device assuming already loaded application components are using the

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Maximum amount of runtime resources reserved for their use) in of said portable device (col. 8, lines 67-col. 9, line 1; col. 9, lines 8-10);

Comparing, using said porcessor said maximum required runtime resources for said one or more new application components to said CARSRMAX (col. 9, lines 11-12); and

5. Chew does not explicitly teach that prohibiting said one or more new application components from being loaded and stored in the flash memory of portable device if said CARSRMAX is less than said maximum required runtime resources. However, Woolsey teaches prohibiting said one or more new application components from being loaded and stored in the flash memory of portable device if said CARSRMAX is less than said maximum required runtime resources (col. 21, lines 11-14).

6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching the Chew and Woolsey because Woolsey's prohibiting said one or more new application components from being loaded and stored in the flash memory of portable device if said CARSRMAX is less than said maximum required runtime resources would increase the throughput of Jones' system by having step of prohibiting one or more new application components from being loaded and stored in the flash memory of portable device if said CARSRMAX is less than said maximum required runtime resources to maximize the use of the digital signal processor or other processor and increase the speed with which the code is executed.

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7. As to claim 4, Jones teaches said CARSRMAX comprises requirements for at least one or more runtime system resources selected from a group consisting of RAM, threads, and sockets (col. 4, lines 8-10).

8. Claims 2-3, 15-16 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chew (U.S. Patent 6,910,210) in view of Woolsey et al (6, 029, 000), and further in view of Jones et al (U.S. Patent 6,282,561).

9. As to claims 2, 15 and 21, Chew and Woolsey does not explicitly teach

Determining total runtime system resources of said device ;

Determining total maximum reserved runtime resources for application components stored in the flash memory of said device; and

Calculating said CARSRMAX based on said total runtime system resources and said total maximum reserved runtime resources.

However, Jones teaches

Determining total runtime system resources of said device (col. 9, lines 52-54);

Determining total maximum reserved runtime resources for application components stored in the flash memory of said device (col. 9, lines 55-58; col. 13, lines 31-40); and

Calculating said CARSRMAX based on said total runtime system resources and said total maximum reserved runtime resources (col. 9, lines 59-61).

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10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching the Chew, Woolsey and Jones because Jones determining total runtime system resources of said device, determining total maximum reserved runtime resources for application components stored in the flash memory of said device; and calculating said CARSRMAX based on said total runtime system resources and said total maximum reserved runtime resources would improve the performance of system by providing the step of reserving runtime resource of each application before using the resources.

11. As to claims 3, 16 and 22, Chew teaches:

Removing one or more of said application components stored in the memory of said device (col. 2, lines 51-55); and

Releasing maximum runtime resources reserved for said one or more application components removed from the memory of device, thereby increasing said CARSRMAX of device (col. 4, lines 5-11).

12. Claims 5- 13, 17-19 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al (U.S. Patent 6,282,561) in view of Chew (U.S. Patent 6,910,210).

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13. As to claims 5, 17 and 23, Jones teaches reserving maximum runtime resources required for each application component stored in memory of the device (col. 5, lines 11-18, lines 35-38 and lines 65-67; col. 13, lines 31-40).

14. Jones does not explicit the portable device. However, Chew teaches the portable device (fig. 1; col. 41-55).

15. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching the Jones and Chew because Chew' portable device to improve the user demand such that easily or conveniently transported.

16. As to claims 6, 18 and 24, Jones teaches running one or more of said application components stored in memory of device using no more than said maximum required runtime resources reserved for each of said one or more loaded application components (col. 5, lines 18-20).

17. As to claims 7, 19, 25 Jones teaches opening said one or more applications components stored in memory (col. 5, lines 35-37);

Monitoring requests for runtime resources by each of said one or more application components stored in memory (col. 5, lines 2-4);

Comparing runtime resources in use plus runtime resources requested to said maximum required runtime resources reserved for each of said one or more application components stored in memory (col. 5, lines 15-17; col. 8, lines 41-50); and

Preventing each of said one or more application components from using more than said maximum required runtime resources reserved for each of said one or more loaded application components stored in memory (col. 5, lines 15-17; col. 8, lines 55-58).

18. As to claim 8, Jones teaches allocating a segment of RAM within the device to each of said application components stored in memory based on RAM requirements in an RDL associated with each of said application component, said allocated segment of RAM being for use by said application component stored in memory (col. 5, lines 10-14).

19. As to claims 9, 11 and 13, Jones teaches running one or more application components stored in memory using said allocated segments of RAM (col. 5, lines 55-57);

Monitoring RAM use by said one or more application component stored in memory (col. 5, lines 4-7);

Preventing each of said one or more application components stored in memory from using more than said segment of RAM allocated to each of said one or more



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application component stored in memory (col. 5, lines 15-18; col. 8, lines 43-45; col. 11, lines 12-14; col. 13, lines 64-67);

20. As to claims 10 and 12, Jones teaches writing thread requirement to a thread table for each of said application component stored in flash memory based on thread requirement in an RDL associated with each of said application stored in memory (col.6, lines 19-25).

### ***Conclusion***

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camquy Truong whose telephone number is (571) 272-3773. The examiner can normally be reached on 8AM – 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3756.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

MENG-AI AN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2195